at1124exam: Radicals and Squares (v818)

Question 1

Simplify the radical expressions.

$$\sqrt{28} \qquad\qquad \sqrt{98} \qquad\qquad \sqrt{75}$$

Question 2

Find all solutions to the equation below:

$$\frac{(x-10)^2}{2} + 5 \;=\; 37$$

Question 3

By completing the square, find both solutions to the given equation. *You must show work for full credit!*

$$x^2 + 12x \ = \ 64$$

Question 4

A quadratic polynomial function is shown below in standard form.

$$y \ = \ 3x^2 - 24x + 53$$

Express the function in **vertex form** and identify the **location** of the vertex.